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Green Human Resource Management



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Synonyms

Environmental human resource management; Green HRM

Definitions

During the 2000s, researchers realized the importance of studies of Green Human Resource Management (HRM) as a topic at the intersection of corporate environmental sustainability and HRM (e.g., Aiman-Smith et al. 2001; Albinger and Freeman 2000; del Brío et al. 2007).

Green HRM can be defined as a set of people-centered practices oriented toward developing and maintaining the workforce's abilities, motivation, and opportunities to contribute to an organization's economic and environmental sustainability (e.g., Martínez-del-Río et al. 2012; Renwick et al. 2013). Therefore, it can be conceived as a set of best HRM practices oriented

toward enhancing the overall environmental sustainability orientation of all of the functions and dimensions of an organization.

These best practices include green recruitment and selection, green education and training, rewards systems, appraisal and performance management, involvement, employee empowerment in environmental issues, green communication, and green teamwork (Jabbour et al. 2010; Renwick et al. 2013).

Introduction: The Logic Form Implementing Green HRM

Several studies have emphasized the importance of employee contributions to achieving environmentally sustainable production systems (e.g., Hart 1995; Jackson et al. 2011; Martínez-del-Río et al. 2012; Renwick et al. 2013; Russo and Fouts 1997). Environmental sustainability requires the attraction and selection of employees motivated by environmental concerns.

Corporate environmental issues are typically complex, changing, and multifaceted. For instance, there is growing awareness of the implications of the extensive use of plastics in production systems for wildlife. A company producing food packaging that relies on plastics as the primary raw material might require complex knowledge related to product redesign and biodegradable new materials to adapt corporate

processes to less-polluting raw materials. The problem is changing because, for a long time, plastics were regarded as a recyclable, more sustainable solution than other options (e.g., paper, glass). The new evidence requires adaptation from companies and employees. Finally, the problem is multifaceted because microplastics entail implications for wildlife, but customers might also perceive microplastics to be in contact with food, endangering their personal health. To approach complex, changing, and multifaceted environmental issues, the ongoing training, motivation, and retention of a talented workforce are necessary.

The primary and most evident rationale for implementing green HRM is to create a “green workforce that understands, appreciates, and practices green initiatives and maintains its green objectives all throughout the HRM process of recruiting, hiring, training, compensating, developing, and advancing the firms human capital” (Mathapati 2013). In other words, the most evident goal is to create the most suitable human capital to obtain sustainability-related competitive advantages such as green products or increased eco-efficiency. Therefore, green HRM may ultimately improve economic performance by generating competitive advantages related to environmental sustainability (e.g., del Brío et al. 2007; Carmona-Moreno et al. 2012; Martínez-del-Río 2012).

Interestingly, there is another way in which green HRM may contribute to the firm’s goals. Several studies are finding cumulative evidence suggesting that green HRM can be a useful tool to achieve the most general HRM goals of firms, such as enhancing overall employee motivation, attracting talented candidates, and retaining most valuable employees. For instance, Turban and Greening (1996) and Jones et al. (2014) found that a green reputation effectively attracts most talented prospect employees and Delmas and Pekovic (2013) found that the adoption of environmental standards increase employee productivity. Therefore, green HRM may also improve economic performance by contributing to HRM-related competitive advantages such as superior human capital, employees’ involvement, and skills repertoire.

The objective of this book entry is to explain what green HRM is, as well as to expose how this phenomenon can contribute to Sustainable Development Goal 12: Ensure sustainable consumption and production patterns.

How to Implement Environmental Sustainability: Green HRM as a Bottom-Up Approach

Moved by stakeholders (Sharma and Henriques 2005) and institutional – e.g., regulatory – and competitive pressures (e.g., Bansal and Roth 2000), increasing numbers of firms have explicitly introduced environmental sustainability into their values and mission statements. As a consequence, firms are increasingly setting sustainability as a strategic goal to later introduce sustainability to lower firm levels. This approach represents a “top-down” perspective in which top management establishes sustainability as a strategic goal, and middle managers and employees must determine how to implement it.

Alternatively, environmental sustainability implementation can be approached as an emerging, bottom-up process (Dangelico 2015). Eco-initiatives frequently emerge from creative ideas from bottom-line employees (Fernández et al. 2003), and environmental strategies depend to a great extent on employees’ behavior, commitment, involvement, and dedication (Daily et al. 2009). Effective environmental sustainability requires crucial contributions from HRM (Rothenberg 2003; Govindarajulu and Daily 2004). The extant literature has stressed the influence of human factors on companies’ environmental policies. For example, Ramus and Steger (2000) assessed the relationships of environmental policy with supervisory support behaviors and employee environmental initiatives. Boiral (2009) emphasizes the role of environmental citizenship behaviors. Russo and Harrison (2005) studied the link between compensation systems and environmental results. In addition, it has frequently been argued that proactive environmental strategies are human resources based (e.g., Hart 1995; Aragón-Correa and Sharma 2003).

In this sense, green HRM can be conceived as an approach to implementing environmental sustainability. Green HRM practices are instrumental to generating a bottom-up and cross-functional process based on employee involvement and contributions through new ideas, common values and goals, the use of environment-related skills and knowledge, shared meanings, etc., which “spread up” through formal and informal daily interactions and decision-making. By aligning practices such as training, selection, recruitment, rewards, and performance evaluation toward environmental sustainability, green HRM facilitates the process of the successful formulation and implementation of corporate environmental sustainability (Daily and Huang 2001).

Dangelico (2015) recommended some initiatives based on green HRM to implement sustainability as a bottom-up process:

- Create a favorable business environment with high levels of environmental orientation and awareness.
- Provide employees with the appropriate training to improve environmental competences and awareness.
- Implement awards systems to praise and reward employees’ environmental efforts and achievements.
- Provide adequate support from top managers to employees in environmental challenges.

A bottom-up approach also emphasizes the importance of tacit knowledge in environmental sustainability. The environmental initiatives of employees not only come from explicit knowledge but also, most frequently, they rely on tacit knowledge (Boiral 2002). Due to their physical proximity to the production processes, employees frequently hold valuable tacit knowledge about the production process that is not written in any procedure and is unknown by middle and top management. Emphasizing the role of bottom-line employees facilitates the use of employees’ tacit knowledge in the struggle to achieve environmental sustainability.

What hampers green HRM implementation processes? Yuriev et al. (2018) conducted a systematic literature review of the empirical studies addressing this question. The authors categorized the obstacles into organizational and individual. Organizational barriers include non-green corporate values, poor communication, lack of management commitment and support regarding ecological issues, and non-authentic pro-environmental goals. Individual barriers include environmental attitudes and values, lack of knowledge, social norms, perceptions of self-efficacy, and time pressures. Most of the organizational barriers were proved not to influence intentions but actions, while individual barriers influenced staff intentions in going green.

Green Human Resource Practices

Green HRM has a multidimensional nature and consists of diverse groups of best practices (Renwick et al. 2013; Tang et al. 2018). These best practices resemble the Ability–Motivation–Opportunity model (Appelbaum et al. 2000), suggesting that human resource practices enhance firm performance through increases in employees’ abilities, motivations, and opportunities. Applied to green HRM, the logic is similar. The goal is to achieve environmental sustainability through increases in employees’ *abilities* (i.e., attracting and training employees with relevant environmental skills), *motivations* (i.e., rewarding employees for environmental achievements, performance appraisals including environmental issues), and *opportunities* (i.e., communication of environmental ideas, teamwork applied to environmental goals).

Table 1 illustrates most commonly used green human resource practices. This table does not intend to be exhaustive or exclude other HRM practices that can also be considered “green.”

In the following sections, we explain in detail the most common practices of green HRM.

Green Human Resource Management, Table 1 Summary of green human resource practices

Dimension	Green human resource practices
Green recruitment and selection	Using green employer branding to attract green employees (App et al. 2012)
	Improving organization's green reputation (Turban and Greening 1996)
	Recruiting employees who have environmental awareness (del Brío et al. 2007)
	Including environmental aspects in job descriptions and candidate specifications (Renwick et al. 2013)
	Evaluating candidates' environmental knowledge, values, and beliefs (Renwick et al. 2013)
	Displaying information about environmental activities in the recruitment process (Ehnert 2009)
	Including information about environmental activities of the organization in recruitment websites (Ehnert 2009)
Green education and training	Providing specific training to technical staff on issues such as more efficient technologies, new materials, recycling processes, waste treatment, or process redesign
	Developing training programs on broader, industry-specific environmental issues to enhance employees' awareness of the environmental impact of their organization's activities (Bansal and Roth 2000; Ramus 2001)
	Developing training programs which provide the necessary knowledge to develop preventive solutions (Tang et al. 2018)
	Implementing experiential practices with educational purpose, such as employee gardens (Jackson and Seo 2010)
Pay and reward systems	Implementing economic incentives related to the achievement of environmental objectives
	Recognition-based rewards for environmental initiatives such as merit certificates, recognition in the organization's newsletter or the greening monthly award (Ramus 2001)
	Including non-monetary rewards such as paid vacations, time off, and gift certificates (Govindarajulu and Daily 2004)
	Providing financial or tax incentives for environmental initiatives, for instance, bicycle loans, use of less-polluting cars (Tang et al. 2018)
	Offering green benefits (transport/travel) in preference to give out prepaid cards to purchase green products (Tang et al. 2018)
Green appraisal and performance management	Using green performance indicators in PM system and appraisals (Zibarras and Coan 2015)
	Setting green goals and responsibilities for managers and employees (Milliman and Clair 1996)
	Evaluating green outcomes of managers and employees (Tang et al. 2018)
	Providing employees with constructive feedback about environmental issues (Jabbour et al. 2010)
Green communication	Implementing environmental information and idea-sharing program (Spreitzer et al. 2005)
	Implementing a communication policy with several formal or informal communication channels (Renwick et al. 2013)
	Promoting a participatory and open-style communication for employees (Ramus 2001)
	Using environmental reports or newsletters to get employees informed about environmental priorities and goals of organization (Ketokivi and Castaner 2004)

(continued)

Green Human Resource Management, Table 1 (continued)

Dimension	Green human resource practices
Green teams	Using cross-functional teams to address environmental issues or crises (Denton 1999)
	Including environmentally aware staff in new product development and quality teams
	Using functional teams to implement environmental plans and strategies (Govindarajulu and Daily 2004)
Empowerment and supportive managerial behaviors	Fostering employee participation in environmental management (Remmen and Lorentzen 2000)
	Extensive support from managers to employees in environmental issues (Ramus and Steger 2000)
	Setting out a clear environmental vision (Harris and Crane 2002)

Practices Oriented Toward Improving Employees' Green Abilities

Green Recruitment and Selection

To manage the challenges associated with the natural environment, organizations should attract, recruit, and select people intrinsically motivated to display pro-environmental behaviors (Jabbour and Santos 2008), particularly high-quality recruits. Employees with greater environmental awareness will be more willing to apply their environmental knowledge in the operational process, in turn improving the environmental performance of their organizations (e.g., del Brio et al. 2007). Moreover, it is necessary to have employees who are willing to become involved and to volunteer in environmental management activities. Selection is crucial to selecting employees with environmental knowledge and training them to fit the organization's environment and culture (Vlachos 2009). In the selection process, interviews and evaluations to draw out candidates' environmental knowledge, values, and beliefs should be conducted to ensure that the candidates are fit for the job. Job descriptions and candidate specifications that reflect the environmental aspects of the job have been identified in the literature as useful to recruiting employees with environmental knowledge and values (Renwick et al. 2013).

Conversely, job seekers can be attracted by a firm's environmental reputation. Prospective employees can perceive a strong environmental

stance from a firm as a signal of the firm's future behavior (Turban and Greening 1996; Jones et al. 2014). Accordingly, organizations are using "green employer branding" (App et al. 2012) and are displaying information about environmental activities during the recruitment process to enhance their attractiveness to the most conscious and aware candidates (Ehnert 2009). In this vein, an organization's green reputation is crucial to attracting job seekers who identify with organization's values. Willness and Jones (2013) suggested that signaling-based mechanisms should be used during the recruitment process. Job seekers thus can (1) perceive that their own environmental values and the firm's values are strongly fitted, (2) consider information regarding the organization's environmental and social performance as a signal of the future relationship between employer and employees, and (3) feel a sense of pride in working for a firm with a green reputation (Willness and Jones 2013; Zibarras and Coan 2015).

Green Education and Training

Extensive employee training on environmental issues has a significant effect on overall environmental sustainability (e.g., Ramus 2001). Green education and training programs enhance employee awareness of the environmental impact of their organizations' activities (Bansal and Roth 2000). Training involves employees intellectually and emotionally in environmental issues and informs them about possible solutions to current

problems (Fernández et al. 2003). Environmentally aware employees are more likely to suggest ideas and initiatives to preserve the environment, such as methods for recycling and reusing waste, solutions for environmental problems, or identification of pollution sources (Sammalisto and Brorson 2008). Employee-enhanced environmental awareness also facilitates a mass critique of employees embracing top-management plans and goals about environmental sustainability and decreases resistance to change regarding environmental issues.

In addition to increasing employee awareness, green training programs can also improve employees' specific knowledge and skills regarding environmental activities (Tang et al. 2018). Firms' environmental initiatives demand new practices and knowledge. Environmental management activities are usually complex and require specific skills that can only be acquired through specific training.

Several theories can facilitate understanding of the effect of training. Reinforcement theory proposes that training provides a positive outcome if training programs are aligned with organizational goals (Skinner 2014). Careful planning of any environmental training program is of paramount importance to attaining relevant environmental goals. Although training programs should be tailored in accordance to firm specificities, training should be cross-functional to increase employees' overall environmental awareness and should include topics such as new technologies, new materials, product and process redesign, environmental life-cycle assessment, environmental goal setting, waste monitoring, and so on.

Social learning theory suggests that employees learn in a social context. New skills and behaviors can also be learned by observing and imitating others (Ismail 2017). Therefore, awareness and knowledge can become more widespread among employees through social interactions. Employees can informally learn from their colleagues with environmental expertise in contexts with a positive "green work climate" (Tang et al. 2018). In this sense, voluntary participation in environmental programs could complement

formal training to improve environmental skills and the employees' motivations (e.g., Todd 2010). Jackson and Seo (2010) emphasized the relevance of experiential practices. For instance, organizations such as Google and Intel have established employee gardens on company facilities, where employees can help in growing the gardens and even organic vegetables, which are later used as food in company cafeterias and restaurants. These initiatives can be introduced with educational purposes to help employees learn environmental sustainability informally.

Practices Oriented Toward Improving Employees' Motivations to Engage in Environmental Issues

Pay and Reward Systems

Reward systems are widely seen in the literature as a catalyst in motivating employees and increasing their commitment with environmental tasks, processes, and objectives (Patton and Daley 1998; Govindarajulu and Daily 2004). The aim of a reward system is to attract, retain, and motivate employees to achieve environmental goals (Renwick et al. 2013). In fact, Jackson and Seo (2010) suggested that rewards and incentives could be the most powerful way of aligning organizational environmental goals with employees' self-interest goals among all of the practices that constitute the human resource system up. Monetary (e.g., incentives and bonuses) and non-monetary (e.g., recognition and praise) rewards have been found to favor job satisfaction and work motivation (Lawler 1973). Researchers have suggested that a combination of both monetary and non-monetary rewards would be more effective in motivating employees (Renwick et al. 2013). Berrone and Gomez-Mejia (2009) found empirical evidence that environmental performance is positively associated with CEO long-term pay. Along the same line, Cordeiro and Sarkis (2008) found that top executive compensation was positively related to environmental performance only in firms with an explicit linkage between environmental performance and top executive compensation.

Regarding nonfinancial rewards, Ramus (2001) revealed that recognition and praise of environmental initiatives are essential to supporting eco-innovation and increasing the commitment to environmental policies. Recognition in the organization's newsletter, public cheering of employees' environmental initiatives, and giving merit certificates to individuals and teams, among other measures, are frequently effective in motivating employees (Enander and Pannullo 1990). Govindarajulu and Daily (2004) included paid vacations, time off, and gift certificates among non-monetary environmental rewards.

All in all, organizations should compensate employees who contribute to improvements in environmental sustainability to align corporate and employees' objectives. Contributions in areas such as waste reduction and recycling or lowering the environmental impact of processes and products are the usual suspects to be recognized, awarded, or compensated by firms to reduce the environmental impact of their activities.

Green Appraisal and Performance Management

The goal of green appraisal and performance management (PM) is to analyze and evaluate employees' performance linked to their tasks and responsibilities by comparing goals and outcomes (Ivancevich 1995). Using PM for environmental issues provides employees with valuable and constructive feedback about their contributions to environmental sustainability. Feedback can be useful in preventing undesirable attitudes and reinforcing exemplary behavior (Jabbour et al. 2010). Moreover, Jackson (2012) claimed that green appraisal must be dynamic and include new goals and challenges, instead of being stuck in the same green behaviors and skills.

Although PM has been found to be beneficial for firms (e.g., Berrone and Gomez-Mejia 2009; Russo and Fouts 1997), it also entails some challenges (Renwick et al. 2013). In particular, it can be complex to set goals and to gather useful data to measure environmental performance across different departments. Organizational units and functional areas might have

environmental risks and goals of a different nature, and collecting objective data about these goals and risks is frequently costly and complex. For this reason, most firms limit green appraisals and PM to plant or division managers and executives (Milliman and Clair 1996).

A green appraisal and PM system requires setting green goals for all employees, creating green performance indicators, evaluating and analyzing employees' green outcomes, and using disbenefits (Tang et al. 2018). First, setting green goals for all employees means putting environmental objectives into an action plan for all of the firm's members. Second, the creation of green performance indicators refers to setting green standards and criteria according to employees' incumbencies. These indicators must be clear so that employees know what is expected of them and allow them to focus their efforts on the goals. Third, the evaluation of green outcomes is aimed at comparing the preestablished objectives with the results. Finally, the term "disbenefit" refers to a negative measure aimed at addressing employees' green goals not being achieved. Disbenefits are powerful tools to have employees finally meet their green goals (Tang et al. 2018).

Although green performance appraisal is used to motivate, employees might experience the opposite effect if the feedback is overly negative. A good example appears in Chan and Hawkins' (2010) study. Employees working in Hong Kong hotels with an environmental system reported being "repeatedly reminded" and "scolded" when they did not fully implement environmental practices. Overly negative feedback can result in employees engaging in self-protective attitudes and not revealing environmental problems (Renwick et al. 2013).

Practices Oriented Toward Increasing Employees' Opportunities to Contribute to Environmental Sustainability

Employees' green involvement is fundamental to identifying potential green opportunities (e.g., Renwick et al. 2013) and improving the most important outcomes of environmental sustainability (e.g., del Brío et al. 2007).

Green Communication

The importance of environmental information-sharing programs has been suggested by several researchers (e.g., Anderson and Bateman 2000; Ramus and Steger 2000; Rothenberg 2003). Green communication aims to create a green work culture within organizations that can be extended among employees encouraging green behaviors and awareness. Through formal and informal communication channels, employees can be well informed about environmental issues in their workplaces (Tang et al. 2018), motivating them to participate in environmental sustainability. Ramus and Steger (2000) revealed that organizational support, in the form of a well-communicated environmental policy, was positively related to employees' willingness to promote eco-initiatives. Employees should know the priorities and goals of the organization to support organizational integration (Ketokivi and Castaner 2004) through newsletters or environmental reports. Moreover, employee interactions (e.g., environmental information-sharing program) are directly linked to innovations (Spreitzer et al. 2005).

Informal communication channels are particularly useful for progress in environmental sustainability. Informal conversations that arise unexpectedly among members of organizations without following official procedures, motivated by the need to communicate, allow employees to attain additional information, which is not written, for example, in newsletters or reports (Anderson and Bateman 2000). Open-style communication "in an honest and unrestrained manner" (Ramus 2001, p. 94) generates and spreads tacit knowledge among organization members. Boiral (2002) highlighted the relevance of employees' tacit knowledge in identifying pollution sources, managing emergency situations, and developing preventive solutions.

Green Teams

Green teams are "groups of employees helping to identify and implement specific improvements to help their business operate in a more environmentally sustainable fashion" (Bray 2008, p. 10). These teams can be created voluntarily or involuntarily. Firms typically create these

teams as a means to assure the implementation of a specific environmental program or strategy or to solve an environmental problem (Laabs 1992). Green teams positively affect firm environmental performance and reputation and are particularly useful to integrating environmental sustainability into corporate strategy (Dangelico 2015).

Most green projects require a large number of diverse individual skills and competences (Rothenberg 2003). Cross-functional teams (i.e., comprised of employees from more than one organizational area) are appropriate for managing complex and interdisciplinary environmental issues (Denton 1999). However, functional teams (i.e., comprised of employees from a single organizational area) can also be useful for implementing functional area-specific environmental practices, especially when cooperative work is necessary, and the teams are composed of people at several hierarchical levels who perform several different functions (Govindarajulu and Daily 2004).

Empowerment and Supportive Managerial Behaviors

Engagement from both top managers and employees is essential to support the success of environmental management (Renwick et al. 2013). When targeting environmental sustainability not only is necessary the initiative but also the involvement of all employees (Denton 1999). Management commitment powerfully fosters employee empowerment (Kitazawa and Sarkis 2000). Consequently, it is important not to restrict participation in environmental sustainability to managers and specialists in environmental management (Remmen and Lorentzen 2000). As employees are given opportunities to participate in environmental management, they are encouraged to prevent pollution and identify environmental opportunities (del Brío et al. 2007; Tang et al. 2018). To stimulate employees to become involved in environmental issues, it would be particularly useful to provide employees with opportunities, such as engaging in environmental quality improvement and environmental problem solving in the production process (Tang et al. 2018). A change in mindset that leads to a

feeling of psychological empowerment could increase the employee's willingness to come up with suggestions for increasing environmental performance (Kitazawa and Sarkis 2000). Indeed, supportive managerial behavior such as communication, rewarding, and competence building is important in achieving employee engagement and empowerment. Moreover, supportive behavior is strongly related to innovative environmental activities and eco-innovations (Ramus and Steger 2000; Ramus 2001).

A clear environmental vision that sets out environmental values not only will support environmental management in developing an environmental culture in the workplace but will also provide guidance and support to employees involved in environmental issues (Harris and Crane 2002; Renwick et al. 2013). The literature has so far identified some practices that companies can implement to involve employees in environmental initiatives: the use of videoconferencing; car-sharing and home-working; low carbon champions; recycling schemes; green communication and green action teams; and problem-solving groups (Renwick et al. 2013).

Alignment Among Green HRM Practices

The practices described above reinforce each other and produce synergy when they are coherent and aligned with an overall pro-environmental corporate and HRM strategy (Jackson and Seo 2010; Martinez-del-Río et al. 2012). Long-term progress in corporate environmental sustainability largely depends on making full use of training, teamwork, the appraising of environmental goals, nonfinancial rewards, and organizational cultures (Jabbour and Santos 2008). The impact of each practice is greater when the others are also implemented because of interdependence and reinforcement (Renwick et al. 2013).

The coherent and complementary use of green HRM practices disseminates an environmental vision that is shared by top management and employees. The existence of a common vision, environmental models, and shared meanings facilitates coordination and creates a sense of common

purpose among employees. This pro-environmental common purpose promotes collective responses that are consistent with organizational strategic pro-environmental goals (Martinez-del-Río et al. 2012). Green HRM practices clearly transmit the idea to the employees that environmental sustainability is relevant.

In contrast, misaligned practices could work against each other (Schuler and Jackson 1987). Developing a coherent system of green HRM practices is complex and costly, and "organizations are not using the full range of green HRM practices, and this may limit their effectiveness in efforts to improve Environmental Management" (Renwick et al. 2013, p. 1).

Therefore, green HRM must be approached with a comprehensive and integrative perspective. The careful design and implementation of a *system* of green HRM practices, in which all of the dimensions, functions, and practices are considered, are particularly important.

The Role of Green HRM in Sustainable Development Goals

Studies of sustainability and HRM arose to meet the challenge of sustainable development. The Brundtland Commission presented a commonly used definition of sustainable development: "...development, which meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Development Commission on Environment and Development 1987, p. 43). As a consequence, Schaefer et al. (2015) pointed out that the change toward sustainable development must be transformational, involving a "fundamental change in society's culture and collective consciousness that enables the creation of new collective beliefs and values."

Elkington (1997) proposed the concept of *The Triple Bottom Line of 21st Century Business*. The author suggested a responsible approach to businesses for sustainable development, in which businesses should consider the social, environmental, and economic dimensions. A new paradigm in which new values are introduced focuses

on the promotion of social and environmental performance (Elkington 2004). The nascent stream of green HRM research emerged in opposition to traditional HRM to address the concerns of the environmental dimension.

With the objective of adopting the transformative 2030 Agenda for Sustainable Development, the UN General Assembly established in 2015 a set of 17 SDGs and 169 associated targets (UN 2017). The UN SDGs are aimed at operationalizing the vision of sustainable development and establishing areas of action. This action-based plan consists of bold and transformative steps based on a collaborative multinational and multistakeholder participatory process. The 17 SDGs address important unsustainability global problems with desirable outcomes in which nations and companies can contribute. Accordingly, the role of companies in achieving sustainable development is explicitly mentioned in some SDGs (e.g., SDG12, SDG16, and SDG17). In particular, SDG12 Responsible Consumption and Production in target 12.6 calls for “especially large and transnational companies, to adopt sustainable practice and to integrate sustainability information in their reporting cycle” (UN 2017, p. 16). New research streams have arisen with the objective of addressing sustainable development within companies (see the following entries: ▶ “[Green Entrepreneurship](#),” and ▶ “[Sustainable Supply Chain Management](#)”).

The role of HRM in resolving such sustainable challenges has been increasingly acknowledged in the literature (e.g., Ehnert 2009). There is an emerging consensus that employees will play an important role in the path toward sustainability because they know the products and processes best. Therefore, employees can also be considered agents of change. In comparison to traditional HRM, green HRM sheds new light on sustainable development because it integrates environmental management into all of the dimensions, functions, and practices of HRM. Through the alignment of human resources practices with environmental objectives, employees can assist in the implementation of more sustainable production processes and in the

development of more sustainable products, in turn contributing to SDG 12: Ensure sustainable consumption and production patterns.

Final Remarks

In this entry, we have defined and explained what green HRM is and the main reasons for its implementation, outlined the main practices that comprise HRM, and presented green HRM as a bottom-up approach to implement environmental sustainability.

Environmentally sustainable development is currently one of the most relevant challenges worldwide. Given the current situation, organizations must strive to determine strategies to advance towards more sustainable production systems. Although the changes are way insufficient so far, firms are beginning to transition from purely exploitative mindsets to increasingly sustainable approaches. As has been previously explained, green HRM has a critical role in this process as a necessary tool to make sustainability more humane.

To successfully implement environmentally sustainable production processes, scholars and practitioners need to embrace that organizations are composed by people. Human beings are driven by their emotions, their incentives, their life and career aspirations, their identities, their contexts, and their relationships. Green HRM is a tool to include human beings in sustainability, and, consequently, it is a means to assure in a greater extent that sustainability goals are achieved.

Cross-References

- ▶ [Corporate Social Responsibility](#)
- ▶ [Green Entrepreneurship](#)
- ▶ [Innovation Systems for Sustainability](#)
- ▶ [Sustainable Business Models](#)
- ▶ [Sustainable Business Strategies](#)
- ▶ [Sustainable Supply Chain Management](#)

References

- Aiman-Smith L, Bauer TN, Cable DM (2001) Are you attracted? Do you intend to pursue? A recruiting policy-capturing study. *J Bus Psychol* 16(2):219–237
- Albinger HS, Freeman SJ (2000) Corporate social performance and attractiveness as an employer to different job seeking populations. *J Bus Ethics* 28(3):243–253
- Anderson LM, Bateman TS (2000) Individual environmental initiative: championing natural environmental issues in US business organizations. *Acad Manag J* 43(4):548–570
- App S, Merk J, Büttgen M (2012) Employer branding: sustainable HRM as a competitive advantage in the market for high-quality employees. *Manag Rev* 23:262–278
- Appelbaum E, Bailey T, Berg P, Kalleberg A (2000) *Manufacturing advantage: why high-performance work systems pay off*. Cornell University Press, Ithaca/New York
- Aragón-Correa JA, Sharma S (2003) A contingent resource-based view of proactive corporate environmental strategy. *Acad Manag Rev* 28:71–98
- Bansal P, Roth K (2000) Why companies go green: a model of ecological responsiveness. *Acad Manag J* 43(4):717–736
- Berrone P, Gomez-Mejia LR (2009) Environmental performance and executive compensation: an integrated agency-institutional perspective. *Acad Manag J* 52(1):103–112
- Boiral O (2002) Tacit knowledge and environmental management. *Long Range Plan* 87(2):291–317
- Boiral O (2009) Greening the corporation through organizational citizenship behaviors. *J Bus Ethics* 28(3):221–236
- Bray D (2008) Corporate green teams: a new social trend at work? A conference report and research summary. AltaTerraResearch. http://c.ymcdn.com/site/www.altaterra.net/resource/dynamic/blogs/20080721_144258_24980.pdf. Accessed 29 July 2019
- Carmona-Moreno E, Céspedes-Lorente J, Martínez-del-Río J (2012) Environmental human resource management and competitive advantage. *Manag Res: J Iberoam Acad Manag* 10(2):125–142
- Chan E, Hawkins R (2010) Attitudes towards EMSs in an international hotel: an exploratory case study. *Int J Hosp Manag* 39:641–651
- Cordeiro J, Sarkis J (2008) Does explicit contracting effectively link CEO compensation to environmental performance? *Bus Strateg Environ* 17(5):304–317
- Daily BF, Huang SC (2001) Achieving sustainability through attention to human resource factors in environmental management. *Int J Oper Prod Manag* 21(12):1539–1552
- Daily BF, Bishop J, Govindarajulu N (2009) A conceptual model for organizational citizenship behavior directed toward the environment. *Bus Soc* 48(2):243–256
- Dangelico RM (2015) Improving firm environmental performance and reputation: the role of employee green teams. *Bus Strateg Environ* 24(8):735–749
- Del Brio JA, Fernández E, Junquera B (2007) Management and employee involvement in achieving an environmental action-based competitive advantage: an empirical study. *Int J Hum Resour Manag* 18(4):491–522
- Delmas MA, Pekovic S (2013) Environmental standards and labor productivity: understanding the mechanisms that sustain sustainability. *J Organ Behav* 34(2):230–252
- Denton KD (1999) Employee involvement, pollution control and pieces to the puzzle. *Environ Manag Health* 10(2):105–111
- Ehnert I (2009) *Sustainable human resource management. A conceptual and exploratory analysis from a paradox perspective*. Physica-Verlag, Heidelberg
- Elkington J (1997) *Cannibals with forks: the triple bottom line of 21st century business*. Capstone, Oxford
- Elkington J (2004) Enter the triple bottom line. In: Henriques A, Richardson J (eds) *The triple bottom line, does it all add up? Assessing the sustainability of business and CSR*. Earthscan Publications, London, pp 1–16
- Enander RT, Pannullo D (1990) Employee involvement and pollution prevention. *J Qual Particip* 1(3):50–53
- Fernández E, Junquera B, Ordiz M (2003) Organizational culture and human resources in the environmental issue: a review of the literature. *Int J Hum Resour Manag* 14(4):634–656
- Govindarajulu N, Daily BF (2004) Motivating employees for environmental improvement. *Ind Manag Data Syst* 104(4):364–372
- Harris LC, Crane A (2002) The greening of organizational culture: management views on the depth, degree and diffusion change. *J Organ Chang Manag* 15(3):214–234
- Hart SL (1995) A natural-resource-based view of the firm. *Acad Manag Rev* 20(4):986–1014
- Ismail AI (2017) Employee learning theories and their organizational applications. *Acad J Econ Stud* 3:96–104
- Ivancevich JM (1995) *Human resource management*. Irwin, Chicago
- Jabbour CJC, Santos FCA (2008) The central role of human resource management in the search for sustainable organizations. *Int J Hum Resour Manag* 19(12):2133–2154
- Jabbour CJ, Santos FCA, Nagano MS (2010) Contributions of HRM throughout the stages of environmental management: methodological triangulation applied to companies in Brazil. *Int J Hum Resour Manag* 21:1049–1089
- Jackson SE (2012) Chapter twenty: building empirical foundations to inform the future practice of environmental sustainability. In: Jackson SE, Ones DS, Dilchert S (eds) *Managing human resources for environmental sustainability*. Josey-Bass, San Francisco, pp 416–432

- Jackson SE, Seo J (2010) The greening of strategic HRM scholarship. *Organ Manag J* 7(4):278–290
- Jackson SE, Renwick DWS, Jabbour CJC, Muller-Camen M (2011) State-of-the-art and future directions for green human resource management: introduction to the special issue. *Z Personalforsch* 25:99–115
- Jones DA, Willness CR, Madey S (2014) Why are job seekers attracted by corporate social performance? Experimental and field tests of three signal-based mechanisms. *Acad Manag J* 57:383–404
- Ketokivi M, Castaner X (2004) Strategic planning as an integrative device. *Adm Sci Q* 49(3):337–365
- Kitazawa S, Sarkis J (2000) The relationship between ISO 14001 and continuous source reduction programmes. *Int J Oper Prod Manag* 20:225–248
- Laabs JJ (1992) The greening of HR. *Pers J* 71:61–71
- Lawler EE III (1973) *Motivation in work organizations*. Brooks/Cole Publishing, Monterey
- Martínez-del-Río J, Céspedes-Lorente J, Carmona-Moreno E (2012) High-involvement work practices and environmental capabilities: how HIWPS create environmentally based sustainable competitive advantages. *Hum Resour Manag* 51(6):827–850
- Mathapati CM (2013) Green HRM: a strategic facet. *Tactful Manag Res J* 2(2):1–6
- Milliman J, Clair J (1996) Best environmental HRM practices in the US. In: Wehrmeyer W (ed) *Greening people: human resource and environmental management*. Greenleaf Publishing, Sheffield, pp 49–74
- Patton KR, Daley DM (1998) Gainsharing in Zebulon: what do workers want? *Public Pers Manag* 27(1):117–131
- Ramus CA (2001) Organizational support for employees: encouraging creative ideas for environmental sustainability. *Calif Manag Rev* 43:85–105
- Ramus CA, Steger U (2000) The roles of supervisory support behaviors and environmental policy in employee “Ecoinitiatives” at leading-edge European companies. *Acad Manag J* 43(4):605–626
- Remmen A, Lorentzen B (2000) Employee participation and cleaner technology: learning processes in environmental teams. *J Clean Prod* 8:365–373
- Renwick DWS, Redman T, Maguire S (2013) Green human resource management: a review and research agenda. *Int J Manag Rev* 15:1–14
- Rothenberg S (2003) Knowledge content and worker participation in environmental management at NUMMI. *J Manag Stud* 40(7):1783–1802
- Russo MV, Fouts PA (1997) A resource-based perspective on corporate environmental performance and profitability. *Acad Manag J* 40(3):534–559
- Russo MV, Harrison NS (2005) Organizational design and environmental performance: clues from the electronics industry. *Acad Manag J* 48:582–593
- Sammalisto K, Brorson T (2008) Training and communication in the implementation of environmental management systems (ISO 14001): a case study at the University of Gävle, Sweden. *J Clean Prod* 16(3):299–309
- Schaefer K., Corner PD, Kearins K (2015) Social, environmental and sustainable entrepreneurship research: What is needed for sustainability-as-flourishing?. *Organ Environ* 28(4): 394–413
- Schuler RS, Jackson SE (1987) Organizational strategy and organizational level as determinants of human resource management practices. *Hum Resour Plan* 10(3):125–140
- Sharma S, Henriques I (2005) Stakeholder influences on sustainability practices in the Canadian forest products industry. *Strateg Manag J* 26(2):159–180
- Skinner BF (2014) Contingencies of reinforcement: a theoretical analysis. BF Skinner Foundation, United States of America
- Spreitzer G, Sutcliffe K, Dutton J, Sonenshein S, Grant AM (2005) A socially embedded model of thriving at work. *Organ Sci* 16(5):537–549
- Tang G, Chen Y, Jiang Y, Paille P, Jia J (2018) Green human resource management practices: scale development and validity. *Asia Pac J Hum Resour* 56(1):31–55
- Todd A (2010) Behavioral science is the new green: the Stanford energy reduction initiative. *Observer* 23(5):23–24
- Turban DB, Greening DW (1996) Corporate social performance and organizational attractiveness to prospective employees. *Acad Manag J* 40(3):658–672
- United Nations (2017) Resolution adopted by the General Assembly on work of the statistical commission pertaining to the 2030 Agenda for Sustainable Development (A/RES/71/313). United Nations, New York. <https://unstats.un.org/sdgs/indicators/indicators-list/>. Accessed 5 Aug 2019
- Vlachos IP (2009) High-performance workplace practices for Greek companies. *EuroMed J Bus* 4:21–39
- Willness CR, Jones DA (2013) Corporate environmental sustainability and employee recruitment: leveraging the ‘green’ business practices to attract talent. In: Huffman AH, Klein SR (eds) *Green organizations: driving change with I-O psychology*. Routledge, Hove, pp 231–250
- World Development Commission on Environment and Development (1987) *World commission on environment and development. Our common future*, 17:1–91. Oxford University Press, New York
- Yuriev A, Boiral O, Francoeur V, Paille P (2018) Overcoming the barriers to pro-environmental behaviors in the workplace: a systematic review. *J Clean Prod* 182:379–394
- Zibarras LD, Coan P (2015) HRM practices used to promote pro environmental behavior: a UK survey. *Int J Hum Resour Manag* 26(16):2121–2142